

STREPTOCOCCUS PNEUMONIAE, Drug-Resistant Invasive Disease

Streptococcus pneumoniae (pneumococci) causes many clinical syndromes, depending on the site of infection (e.g., acute otitis media, pneumonia, bacteremia, or meningitis). Pneumococci are a frequent cause of sinusitis and pneumonia.

Laboratory Criteria for Diagnosis

- ?? Isolation of *S. pneumoniae* from a normally sterile site (e.g., blood, cerebrospinal fluid, or, less commonly, joint, pleural, or pericardial fluid), **and**
- ?? “Nonsusceptible” isolate (i.e., intermediate- or high-level resistance of the *S. pneumoniae* isolate to at least one antimicrobial agent currently approved for use in treating pneumococcal infection as defined by the National Committee for Clinical Laboratory Standards).

Case Classification

Confirmed: A clinically compatible case that is laboratory confirmed.

Probable: A clinically compatible case caused by laboratory-confirmed culture of *S. pneumoniae* identified as “nonsusceptible” (i.e., an oxacillin zone size of <20 mm) when oxacillin screening is the only method of antimicrobial susceptibility testing performed.

Epidemiology

Kentucky	2001	Rate per 100,000	Cases by Gender	Rate per 100,000
Cases	27	0.7	Female 13	0.6
			Male 14	0.7

***S. pneumoniae* Incidence by Age Groups in Kentucky, 2001**

Age in years	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+
# Cases	7	0	1	2	2	3	2	3	7
Rate per 100,000	1.3	0.0	0.2	0.3	0.3	0.6	0.6	1.3	5.5

The Northern Kentucky District experienced the highest incidence of 2.3 cases per 100,000, followed by the North Central District and the Green River Districts, each with a rate of 1.0 case per 100,000.